Application No. 09/843,150
Docket No. 065691/0219

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

1. (Once Amended) An isolated DNA molecule comprising at least a sequence A flanked by at least site specific recombinase targeting sequences (SSRTS) L1, and at least a sequence B flanked by at least site specific recombinase targeting sequences (SSRTS) L2, said SSRTS L1 and SSRTS L2 being unable to recombine with one another, ~~and~~ wherein:

(i) sequences L1 are in an ~~opposite~~ orientation opposite to one another, ~~and~~

(ii) sequences L2 are in an ~~opposite~~ orientation opposite to one another, and

(iii) the order of SSRTS sequences in said DNA molecule is 5'-L1-L2-L1-L2-3'.

5. (Twice Amended) The DNA molecule according to claim 1, wherein sequences A and B are in ~~an~~ a direction opposite ~~direction~~ to each other.

6. (Twice Amended) The DNA molecule according to claim 1, wherein the ~~site-specific~~ recombinase ~~targeting sequence~~ specific of said SSRTS L1 and the ~~site-specific~~ recombinase ~~targeting sequence~~ specific of said SSRTS L2 are the same.

7. (Twice Amended) The DNA molecule according to claim 1, wherein the ~~site-specific~~ recombinase ~~targeting sequence~~ specific of said SSRTS L1 and the ~~site-specific~~ recombinase ~~targeting sequence~~ specific of said SSRTS L2 are different.

8. (Twice Amended) The DNA molecule according to claim ~~1,~~ 6, wherein ~~the~~ said ~~site-specific~~ recombinase ~~targeting sequence are~~ specific of said SSRTS is selected from the group consisting of ~~site-specific recombinases composed of the~~ Cre recombinase of bacteriophage P1, the FLP recombinase of Saccharomyces cerevisiae, the R recombinase of Zygosaccharomyces rouxii pSR1, the A recombinase of Kluyveromyces drosophilarium pKD1, the A recombinase of Kluyveromyces waltii pKW1, the integrase λ Int, the recombinase of the GIN recombination system of the Mu phage, ~~of the~~ and bacterial β recombinase ~~or a variant thereof~~.

9. (Once Amended) The DNA molecule according to claim 8, wherein said ~~the~~ recombinase is said ~~the~~ Cre recombinase of bacteriophage P1 ~~or its natural or synthetic variants~~.

10. (Once Amended) The DNA molecule according to claim 9, ~~characterized in that said SSRTS L1~~ wherein said SSRTSL1 and/or L2 specific for said Cre recombinase are ~~chosen~~ selected from the group ~~composed of the sequences~~ consisting of Lox P1, Lox 66, Lox 71, Lox 511, Lox 512,

Lox 514, and mutated ~~sequences of~~ Lox P1 sequences, wherein said mutated Lox P1 sequences comprise ~~site harboring~~ at least one point mutation in the spacer sequence.

11. (Once Amended) The DNA molecule according to claim 10, wherein either SSRTS L1 comprises the Lox P1 nucleotide sequence (SEQ ID NO. ~~N°~~1) and SSRTS L2 comprises the Lox 511 nucleotide sequence (SEQ ID NO. ~~N°~~ 2) or SSRTS L1 comprises the Lox 511 sequence and SSRTS L2 comprises Lox P1 sequence.

12 (Once Amended) The DNA molecule according to claim 8, wherein the recombinase is the FLP recombinase of Saccharomyces cerevisiae~~, or its natural or synthetic variants~~.

16. (Once Amended) The DNA molecule according to claim 15, wherein at least the sequences A and/or B are transcribed and translated, wherein said translated sequences code ~~sequences coding~~ for at least one protein ~~selected in the group consisting of polypeptide, protein and protein fragments~~.

17. (Once Amended) The DNA molecule according to claim 16, wherein said protein is ~~selected in the group consisting of reporter protein, selection marker and~~ ~~a~~ protein of interest.

22. (Once Amended) The DNA molecule according to claim 21, wherein said autofluorescent protein is selected ~~in~~ from the group consisting of the green fluorescent protein (GFP), the enhanced green fluorescent protein (EGFP), the red fluorescent protein (RFP), the blue fluorescent protein (BFP), and the yellow fluorescent protein (YFP) ~~and variant of these proteins~~.

CERTIFICATION OF FACSIMILE TRANSMITTAL

I, Marie Lucier, certify that this paper and its attachments were transmitted by facsimile on June 19, 2003, to the U.S. Patent and Trademark Office, facsimile number 703-746-5114.

Marie Lucier: Marie A Lucier Date: June 19, 2003 6/19/2003